



LA FARGE MUNICIPAL UTILITIES

105 W. Main St. P.O. Box 39

La Farge, WI 54639

Telephone: (608)625-2333

Fax: (608)625-2800

E-Mail: lafutil@mwt.net

05-6F-113
(2950)



RECEIVED

2003

Electric Division

21 JAN 21

PUBLIC SERVICE

January 1, 2003

Mr. Scot Cullen, Chief Electric Engineer
Public Service Commission
610 N. Whitney Way
P.O. Box 7854
Madison, WI 53707-7854

RE: In the Matter of Filing Reporting Requirements for Appropriate Inspection and Maintenance, PSC Rule 113.0607(6)

Dear Mr. Cullen:

Enclosed for filing are 3 copies of La Farge Municipal Utility's report to the commission, submitted every two years, showing compliance with its Preventative Maintenance Plan.

Very truly yours,

Wayne J. Carpenter
Public Works Manager

Enclosures

TWO YEAR REPORT DOCUMENTING COMPLIANCE WITH THE PREVENTATIVE MAINTENANCE PLAN

La Farge Municipal Utilities

**FILING DEADLINE
FEBRUARY 1, 2003**

January 1, 2003

Wayne J. Carpenter

105 W. Main St.

La Farge, WI 54639

(608)625-2333

lafutil@mwt.net

This report format was prepared by the MEUW work group for PSC Rule 113.0607 for use by the 82 municipal electric utilities in Wisconsin and endorsed by PSC staff as meeting the requirements of Rule PSC 113.0607.

OVERHEAD DISTRIBUTION INSPECTION FORM

Date 9-24-02 Inspected by LaFarge Sub 1 ckt EAST, Rural 10

MAP AREA	STRUCTURE												EQUIPMENT								CLEARANCE				COMMENTS	Date Item Corrected	Corrected By	
	LOCATION	Pole Condition/Leaning	Crossarm Condition	Insulators, DE, Pin	Soil Conditions	Pole Steps	Grounds Intact, Molding	Down Guys and Markers	Guy Bond, Insulator	Signs, Loc#, Warning	Customer Equipment	Conductor and Ties	U'Guard/Conduit Cond	RFI Check	Transformer	Switches	Cutouts	Arresters	Terminators	Street Light	Tree Trimming	Ground Line Clearances	Building Clearances	Streets, Roads, Alleys				Communication Clearance
ST Hwy 82 East	1					2	2		2		2		0	0							4	4	4	4		pole upgrade Conductor E13094 Oak Tree Needs Trimming	12-20-02	4 util
ST Hwy 82 East													0	0							2					TAP Line Upgrade E13758		
ST Hwy 82 East	1	1	1			1	1		2		2		0	2												Loose Guy, wires - E14208	12-19-02	4 util
ST Hwy 82 East							2						0								3		3			pole replacement Fire # E14284	12-19-02	4 util
ST Hwy 82 East	1					2	2		2		2		0			2	2				2	2	2			upgrade e Fire # E14430		
Duganbrook Lane	1					2	2		2		3		0			2	2									TAP Line Upgrade		
ST Hwy 82 East	1												0								4	4	4			pole replacement Fire # E14528	12-15-02	4 util
Canyon Ave							2						0													Intersecting Canyon + ST Hwy 82		
CTH "D"													0								3					pole # R-047		
ST Hwy 82 East													0	1												pole R-002 - Replace OCL		
CTH "D"	1												0								4	4	4			Add pole for clearance	1-9-03	4 util
CTH "D"	1												0								4	4	4			Add pole for clearance	1-9-03	4 util

Date 9-25-02 Inspected by LaFaire Sub 1 Ckt EAST 30, 2.4V

7

Date 6-7-02 Inspected by LaFore Sub 1 ckt South 3p, 2.4 kv

7

Circuit Nath, 2.4Kv

Date Item Corrected _____

Corrected By _____



**ADVANCED ELECTRIC
EQUIPMENT SERVICE INC.**

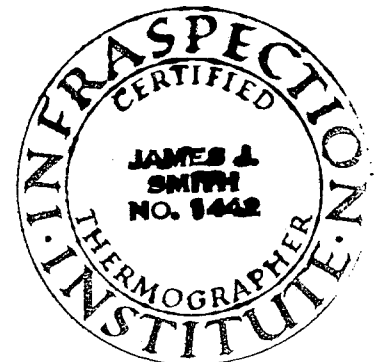
PHONE: 608-781-2627 FAX: 608-781-2628

INFRARED REPORT

LA FARGE ELECTRIC UTILITY

LA FARGE, WI

CONTACT: WAYNE CARPENTER
JOB NUMBER: 38479
TESTED BY: JIM SMITH
DATE: 07/10/01



ADVANCED ELECTRIC EQUIPMENT SERVICE INC. INFRARED REPORT

CUSTOMER: LA FARGE ELECTRIC UTILITY LOCATION: LA FARGE, WI DATE: 7/10/01

The equipment used in your Infrared Inspection was an I.S.I. VideoTherm 2000 color uncooled focal plane array infrared imaging system, Serial # 206.

Operation of the VideoTherm 2000 is based on the principle that all objects radiate quantities of infrared energy according to their temperature and emissivities. This imaging system converts the levels of infrared radiation to corresponding levels of visible light so a detailed television picture is displayed on the view screen and recorded on video tape. The thermal image is 320 x 240 pixels in the 8-14 micron region. Incorporated into the view is a full visible camera to provide a real time normal camcorder type image. A built in microphone is used for recording audio comments.

The VideoTherm 2000 also has an integrated non-contact thermometer, or pyrometer, which provides a graphic temperature display. The sighting circle is displayed on the screen. It is adjustable for emissivity and will indicate in Fahrenheit or Centigrade. Peak or Valley Hold can be used to record the maximum or minimum temperature in view.

Note: Determination of Action Code is based on the maximum temperature of the temperature difference from phase to phase, our estimation of the importance of the equipment, and on the degree of loading. This is only an opinion. You must make the final determination as to when repair or replacement takes place. Suggested time periods for repair are as follows:

ACTION CODE

A - Extreme Risk
B - High Risk
C - Medium Risk
D - Low Risk

SEVERITY

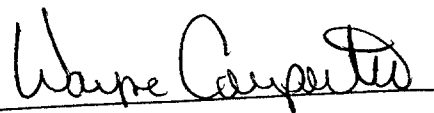
FAILURE IMMINENT! REPAIR IMMEDIATELY!
As Soon As Possible
Within Three Months
Within Three To Six Months

All inspections were performed with the electrical system in the "as found" condition. No attempt was made to verify the percentage of load on the system. If load increases, so will the heating.

Thank you for the opportunity to service your predictive maintenance needs. I'd be happy to answer any questions you may have after reviewing the following report. We also offer a re-scan at a reduced rate after problem areas are corrected to verify equipment is operating satisfactory.

Scanned by: Jim Smith

Signed:



2411 LARSON ST.
LA CROSSE, WI 54603

PHONE: (608) 781-2627
FAX: (608) 781-2628

ADVANCED ELECTRIC EQUIPMENT SERVICE INC.

INFRARED REPORT

EQUIPMENT LIST

CUSTOMER LA FARGE ELECTRIC UTILITY

JOB# 38479

PAGE# 1

PROB# DESCRIPTION

COMMENTS

- | | | |
|---|---|--|
| | CITY SUBSTATION | |
| 1 | CROP MAIN OFFICE ✓ - 8-2-01 | |
| | TIRE SHOP 3 PHASE BANK | |
| | WEST CIRCUIT ALLEY POLE | |
| 2 | SAWMILL TRANSFORMER & CAPACITOR BANK ✓ - 8-1-01 | |
| | CROP RELOCATABLE TRANSFORMER BANK | |
| | RURAL STEP UP TRANSFORMER | |
| | RURAL VOLTAGE REGULATOR | |
| 3 | ELM STREET TRANSFORMER ✓ - 9-5-01 | |
| 4 | WELL H2 BANK ✓ - 8-9-01 | |
| | LIFT STATION | |
| | SEWAGE TREATMENT BANK | |
| | SOUTH STATE STRET TRANSFORMER | |
| | SOUTH SIDE ALLEY POLES (3) | |
| | MAPLE STREET POLE | |
| | POWER HOUSE | |
| | SUBDIVISION | |

ADVANCED ELECTRIC EQUIPMENT SERVICE INC.

INFRARED REPORT

Customer: LA FARGE ELECTRIC UTILITY

Location: LA FARGE, WI

Problem # 1

Job # 38479

Date 7/10/01

Page # 2

Equipment: CROP MAIN OFFICE TRANSFORMER BANK

Location: CROP MAIN OFFICE

Problem Area: WEST SECONDARY BUSHING ON EAST TRANSFORMER

Action Code
(Effect on Plant)

Extreme Risk
High Risk
XX Medium Risk
Low Risk

Probable Cause

Loose Connection
Overload
Check for Cause

Temperature: A

B

C

Recommended Action

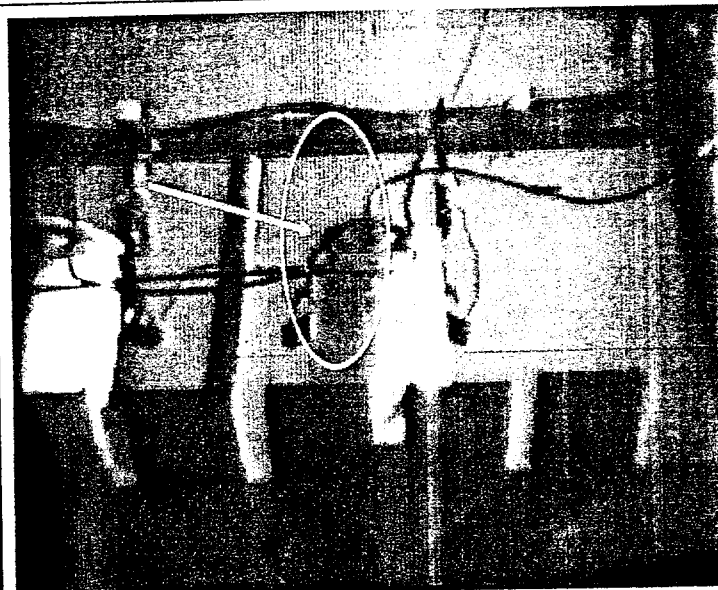
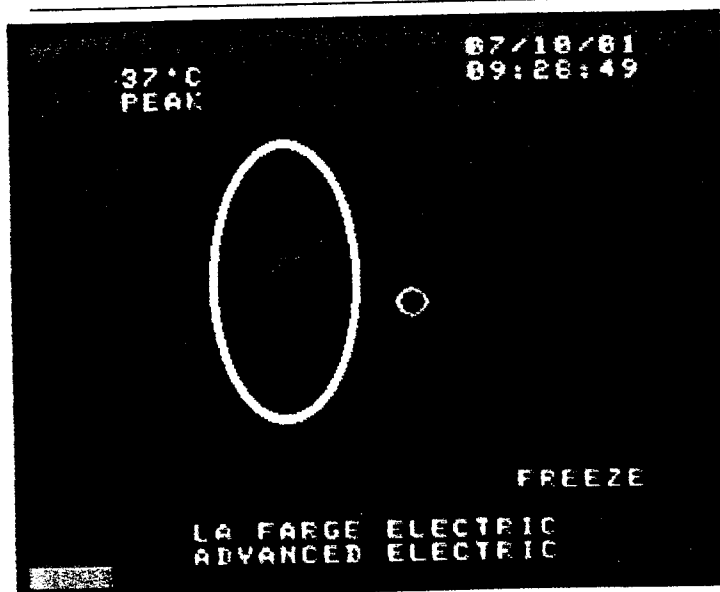
Comments: WEST 37 C
EAST 21 C

Clean & Tighten
Repair/Replace
Check for Cause

Follow Up Action: *Cleaned & tightened*

Date: *8-2-01*

Performed By: *Wayne Carpenter*



Scanned by: JIM SMITH

Signed: *Wayne Carpenter*

2411 LARSON ST.
LA CROSSE WI.

PHONE : 608-781-2627
FAX : 608-781-2628

ADVANCED ELECTRIC EQUIPMENT SERVICE INC.

INFRARED REPORT

Customer: LA FARGE ELECTRIC UTILITY

Location: LA FARGE, WI

Problem # 2

Job # 38479

Date 7/10/01

Page # 3

Equipment: SAWMILL TRANSFORMER BANK PRIMARY FUSES

Location: SAWMILL

Problem Area: CENTER PHASE TOP FUSE / LUG CONNECTION

Action Code
(Effect on Plant)

Extreme Risk
High Risk
XX Medium Risk
Low Risk

Probable Cause

XX Loose Connection
Overload
Check for Cause

Temperature: A

B

C

Recommended Action

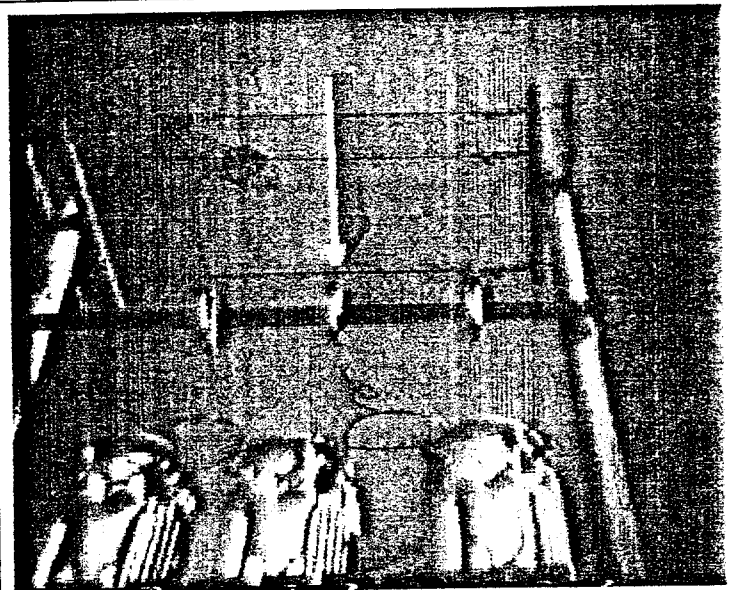
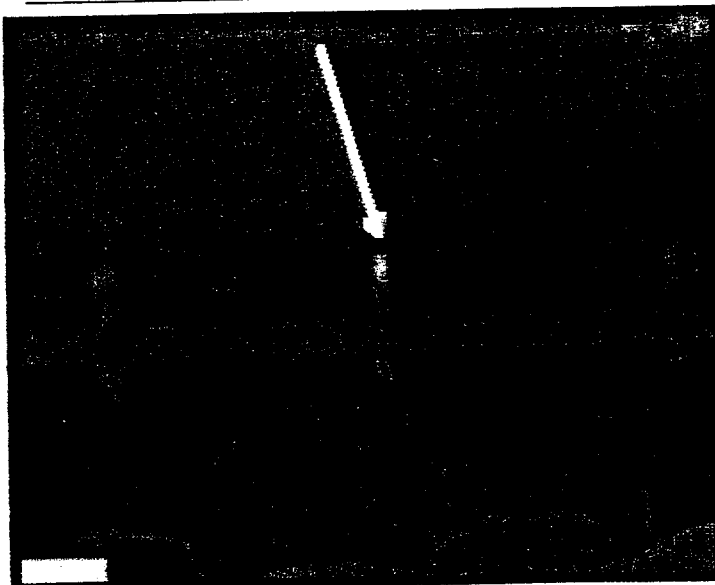
Comments: +5 C RISE.
CHECK ALL CONNECTIONS.

XX Clean & Tighten
Repair/Replace
Check for Cause

Follow Up Action: *Cleaned & Tightened*

Date: *8-1-01*

Performed By: *Wayne CARPENTER*



Scanned by: JIM SMITH

Signed: *Wayne Carpenter*

2411 LARSON ST.
LA CROSSE WI.

PHONE : 608-781-2627
FAX : 608-781-2628

ADVANCED ELECTRIC EQUIPMENT SERVICE INC.

INFRARED REPORT

Customer: LA FARGE ELECTRIC UTILITY

Location: LA FARGE, WI

Problem # 3

Job # 38479

Date 7/10/01

Page # 4

Equipment: ELM STREET TRANSFORMER

Location: ELM STREET

Problem Area: SOUTH SECONDARY BUSHING

Action Code
(Effect on Plant)

XX Extreme Risk
High Risk
Medium Risk
Low Risk

Probable Cause

XX Loose Connection
Overload
Check for Cause

Temperature: A

B

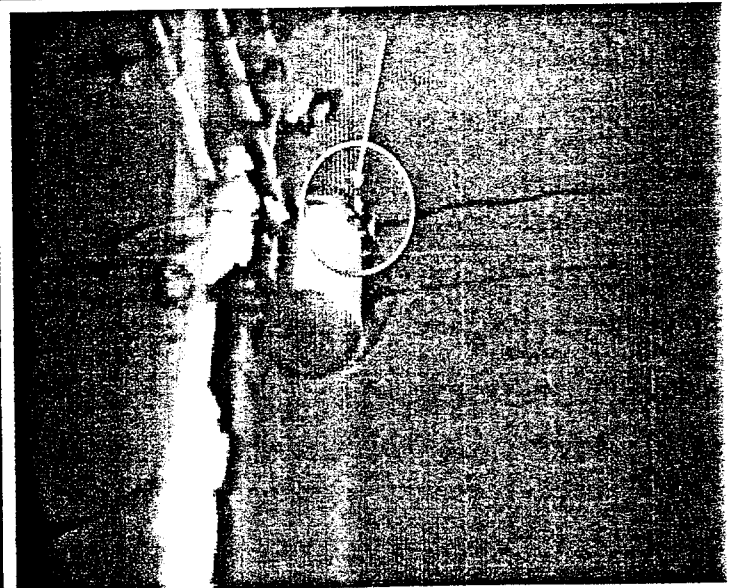
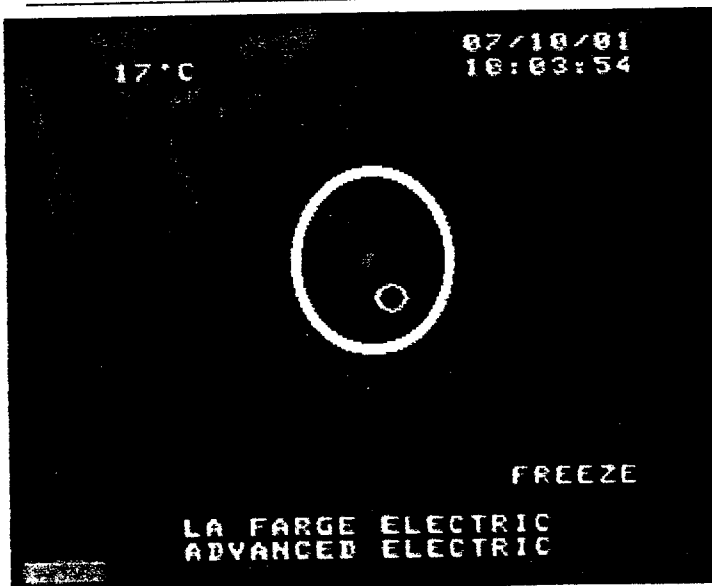
C

Recommended Action

Comments: +20 C RISE.
CONDUCTOR IS CHARRED.

XX Clean & Tighten
Repair/Replace
Check for Cause

Follow Up Action: *SPLIT up Loading with addition of another Transformer mid Block, checked connection on transformer in question, Tightened Lug*
Date: *9-5-01* Performed By: *Wayne, Dan, Phil*



Scanned by: JIM SMITH

Signed: *Wayne Carpenter*

2411 LARSON ST.
LA CROSSE WI.

PHONE : 608-781-2627
FAX : 608-781-2628

ADVANCED ELECTRIC EQUIPMENT SERVICE INC.

INFRARED REPORT

Customer: LA FARGE ELECTRIC UTILITY

Location: LA FARGE, WI

Problem # 4

Job # 38479

Date 7/10/01

Page # 5

Equipment: WELL #2 MAIN CIRCUIT BREAKER

Location: WELL #2

Problem Area: C PHASE LINE SIDE LUG

Action Code
(Effect on Plant)

XX Extreme Risk
High Risk
Medium Risk
Low Risk

Probable Cause

XX Loose Connection
Overload
Check for Cause

Temperature: A

B

C

Recommended Action

Comments: +20 C RISE.
RUN FOR SHORT TIME ONLY.

Clean & Tighten
XX Repair/Replace
Check for Cause

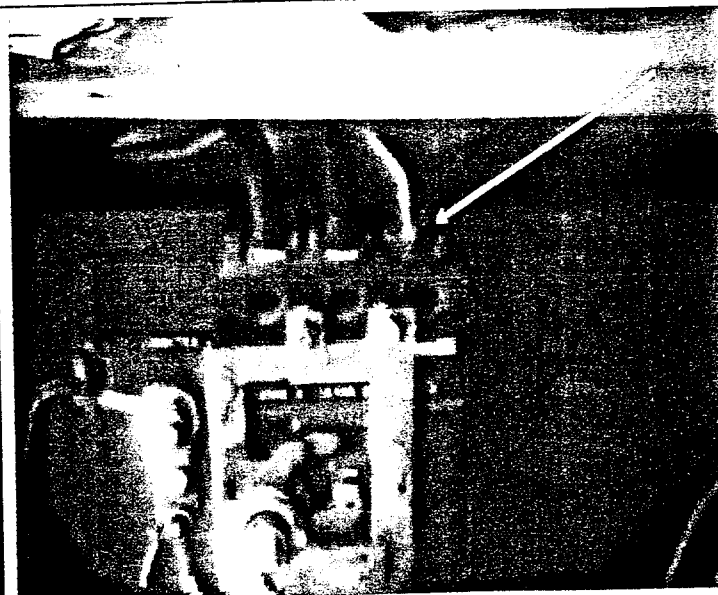
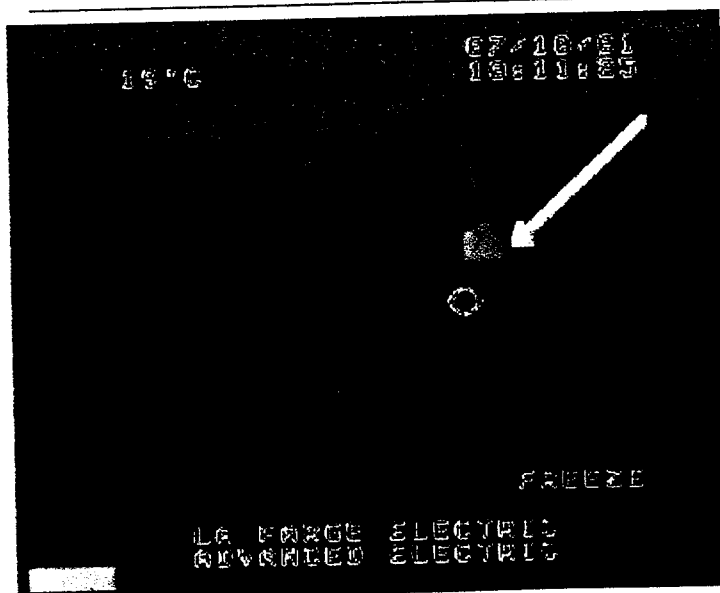
Follow Up Action: * New 200 AMP breaker installed

Date:

8-9-01

Performed By:

Wayne Carpenter



Scanned by: JIM SMITH

Signed:

Wayne Carpenter

2411 LARSON ST.
LA CROSSE WI.

PHONE : 608-781-2627
FAX : 608-781-2628

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: owned & maintained by Vernon Electric Coop

DATE: 110 N. MAIN STREET, WESTBY WI 54601

SUBSTATION: a Farge

[illegible]

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: owned & maintained by Vernon Electric Cooperative

DATE: 110 N. MAIN STREET, WESTBY, WI 54667

SUBSTATION: Lefarge

HIGH VOLTAGE CIRCUIT BREAKER /
CIRCUIT SWITCHER

RATING: 0 1 2 3 4 (Circle One)

inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY
OPEN/CLOSED Indicator				
CHARGED/DISCHARGED Indicator				
Cabinet Light				
Cabinet Heater				
Operations Counter				
Bushings and Supports				
Line and Load Side Disconnect Switches				
Handles Grounded				
Emergency Trip Button				
Air Compressors - Air / Oil				
Air Pressure Gauge - Air / Oil				
Spring Operated Mechanism				
Oil Level Gauge				
Tank Oil Leaks				
Reset Switch				
Cabinet Contamination				
Vents Clean				
Gas Pressures for GCBs				

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Owned & Maintained by Vernon Electric Coop

DATE: 110 N. MAIN STREET, WESTBY, WI 54667

SUBSTATION: La Farge

[illegible]

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: owned & maintained by Vernon Electric Cooperative

DATE: 110 N. Main Street, Webster WI 54607

SUBSTATION: LaFarge

HIGH & LOW VOLTAGE BUSS WORK

RATING: 0 1 2 3 4 (Circle One)

inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY
Bushing, Insulator, Arrestor, and Supports				
Bird Nests				
Transformer Bushings				
Cable Terminators				

MANUAL SWITCHES

RATING: 0 1 2 3 4 (Circle One)

Properly Labeled				
Ground Connections				
Positioning and Alignment				
Bushings and Supports				

MOTOR OPERATED SWITCHES

RATING: 0 1 2 3 4 (Circle One)

OPEN/CLOSED Indicator				
Proper Labeling				
Cabinet Heater				
Operations Counter				
locking criteria				

MONTHLY SUBSTATION INSPECTION FORM

INSPECTED BY: Checked Maintained by Vernon Electric Cooperative

DATE: 110 N. MAIN STREET, WESTBY WI 54667

SUBSTATION: Lafarge

CONTROL HOUSE/MISCELLANEOUS

RATING: 0 1 2 3 4 (Circle One)

inspected	X	COMMENTS	DATE CORRECTED	CORRECTED BY
Clock Displays Proper Time				
AC/DC Load Center Breakers				
Room Temperature				
Rodents				
Panels Labeled Properly				
Panel Lights				
Annunciator Panel				
Panel Meters				
SCADA System RTU				
SCADA Alarms				
Position Indicators Agree				
Relay Target Information				
Emergency Contact Directory & Dialtone for Phone				
Safety Equipment				

BATTERY

RATING: 0 1 2 3 4 (Circle One)

Liquid Levels				
Proper Float Voltage on Charger & Battery				
Specific Gravity in Pilot Cell				
Personal Protective Equipment				
Connection Corrosion				
Leaking Cells				
Dated Solution in Eyewash Station				

YARD & FENCE

RATING: 0 1 2 3 4 (Circle One)

Fire Extinguisher Charged				
Fence Ground Connections				
Fence Secured				
Security and Emergency Lights				
Site Base and Grade				
Standing Water				
Warning Signs				

X Substation - Annual Inspection Guide

- Check equipment for level
- Check condition of concrete pads
- Perform oil and DGA analysis
- Battery
 - ✓ Intercell strap resistance
 - ✓ Individual cell voltages
 - ✓ Cell specific gravity
- Nameplate legible
- Equipment paint condition
- Proper equipment ID labels
- IR / RFI scans and checks

ANNUAL SUBSTATION INSPECTION FORM

Date _____ Inspected by Vernon Electric Substation LaFarge

EQUIPMENT LISTING	SUBSTATION INSPECTION CRITERIA								COMMENTS	MAINTENANCE COMPLETED	
	Check equipment for level	Check condition of concrete pads	Perform oil and DGA analysis	Battery checks - Intercell strap resistance, Individual cell voltages, Cell specific gravity	Nameplate legible	Equipment paint condition	Proper identification labels	IR / RFI scans and checks		Date Item Corrected	Corrected By
Transformer											
LTC or regulators											
High Voltage Breaker											
Feeder CBs / Reclosers											
Switches											
Control house battery											
Transmission line RFI											

XI TRANSMISSION – ANNUAL INSPECTION GUIDE

STRUCTURE

- Pole Condition
- Pole Leaning
- Crossarm Condition
- Insulators, Deadend, Pin
- Excess Fill or Soil Removal
- Pole Steps
- Grounds Intact
- Ground Molding
- Down Guys
- Guy Markers
- Guy Bonding/Insulator
- Signage - Location Number, Warning Sign
- Customer Equipment
- Conductor
- Tie Wires

EQUIPMENT

- Switches - GOAB, Disconnect
 - ✓ Insulator Condition
 - ✓ Operating Handle/Locks
 - ✓ Linkage
 - ✓ Grounding/Bonding
 - ✓ Switch Number
- Arrestor
 - ✓ Insulator Condition
 - ✓ Connections

CLEARANCES

- Ground Line
- Buildings, Bridges, Etc.
- Communications Facilities
- Fuel Tanks
- Other Electric Utilities
- Over Streets, Roads, Alleys, Highways
- Tree Trimming
 - ✓ Clearance From Line
 - ✓ Vines on Poles
 - ✓ Danger Trees

Date _____ Inspected by Vernon Heston Sub Large Ckt _____
Cuf

22

XI TRANSMISSION – ANNUAL INSPECTION GUIDE (con't)

RFI CHECK

- Splices
- Connectors
- Dead Ends
- Switches
- Structures

XII TRANSMISSION – 5 YEAR INSPECTION GUIDE

IR SCAN

- Splices
- Connectors
- Dead Ends
- Switches